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# PLANTS NEW AND NOTEWORTH FOR LOUISIANA AND MISSISSIPPI

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## ABSTRACT

*Juncus longii* and *Symphyotrichum bahamense* are documented for Louisiana and represent new state records for each species. The exotic grass *Chloris truncata* has been recorded for Livingston Parish Louisiana. The collection of *Gladiolus dalenii* is the first report for this species in Mississippi.

**KEY WORDS**: Amaryllidaceae, *Gladiolus*, Asteraceae, *Symphyotrichum*, Juncaceae, *Juncus*, Poaceae, *Chloris*, Louisiana, Mississippi

Among the new discoveries resulting from recent field surveys and collection trips is *Juncus longii* which was observed and collected during the course of vegetation surveys and investigations of water and soil characteristics in the region impacted by the Army Corps of Engineers Davis Pond Freshwater Diversion Structure.

Several plants of ***Juncus longii*** Fernald were observed growing in floating marsh dominated by *Panicum hemitomon* in the vicinity of Lake Cataouatche. The *Juncus* plants were not rooted in soil but in the floating mat consisting of entangled roots of plants with which it was growing. This unique marsh type supports vegetation more like that of the sandy, wet pine savannas further inland due largely to acidic substrates, an abundance of water, presence of sphagnum, and periodic fire. Some of the other associated species include the orchids *Calopogon tuberosus*, *Spiranthes vernalis*, *Platanthera nivea*, *Pogonia ophioglossoides*, and other similarly adapted species such as *Asclepias lanceolata* and *Solidago fistulosa*.

*Juncus longii* along with *J. biflorus* Elliott is sometimes synonymized with *J. marginatus* Rostk. (Brooks & Clements 2000). Knapp and Naczi (2008) provided ample evidence for specific recognition of these three taxa. *Juncus longii* is endemic to the southeastern USA, ranging from Maryland to southwestern Mississippi (Knapp & Naczi 2008), with the present collection extending the distribution of this taxon into southeastern Louisiana and documenting a geographic range extension of about 60 miles to the southwest.

Voucher. **Louisiana**. St. Charles Parish: In floating marsh vegetation dominated by *Panicum hemitomon*, Lake Salvador Wildlife Management area SE of Lake Cataouatche (access by airboat), ca. 6.5 mi SSE of U.S. 90 x S. Kenner Avenue, near 29.82543° N, 90.3107° W, elev. ca. 0.0 m, 14 Jul 2011, *Swarzenski s.n.* (LSU 130927). Figure 1.

***Symphyotrichum bahamense*** (Britton) G.L. Nesom (Bahaman aster) was collected in Tangipahoa Parish from brackish marsh between Lakes Maurepas and Ponchartrain while surveying vegetation for the Coastwide Reference Monitoring System (CRMS) project, Louisiana State Coastal Protection and Restoration Authority (CPRA). This record represents the first report of this taxon from the Gulf Coast region west of Florida. *Symphyotrichum bahamense* occupies coastal salt marshes and other marshy habitats as well as disturbed areas. Its known distribution includes the Bahamas, Cuba, peninsular Florida and westward into the eastern panhandle (Nesom 2005;

Wunderlin & Hansen 2013). It is also reported for eastern Georgia (Nesom 2005; Weakley 2012) and it is adventive in California (Brouillet et al. 2006). The taxon has varietal status as *S. subulatum* (Michaux) G.L. Nesom var. *elongatum* (Bosserdet ex A.G. Jones & Lowry) S.D. Sundberg in Flora of North America (Brouillet et al. 2006). This report provides specific recognition for the taxon as is done in recent treatments (Nesom 2005; Weakley 2012; USDA, NRCS 2013).

*Symphyotrichum bahamense* may be underreported due to the technical nature of distinguishing entities in this complex and the inclination of some investigators to include it within a broadly defined *S. subulatum*. *Symphyotrichum bahamense* is most similar to the very abundant *S. divaricatum* in this region but may be distinguished from it in having fewer than 20 disc florets per head, compared to typically 30 or more for the latter. *Symphyotrichum bahamense* has ray florets in 2-3 series with white to lavender corollas, compared to a single series with more bluish corollas in *S. divaricatum*. In the former, heads at first are borne at ends of long, bracteate branches with capitula developing on axillary and nearly sessile or very short lateral branches, compared to the much longer lateral ones resulting in an open, diffuse panicle for the latter. Comparison with other species in this complex were made by Nesom (2005). In the specimens under consideration in this report, LSU 130439, 130440, the number of rays was slightly less than reported in the literature. This could be due to the plants growing among highly competitive marsh vegetation or simply to sampling error.

Voucher. **Louisiana**. Tangipahoa Parish: In intermediate marsh just S of North Pass nearly 1 mi E of U.S. 51 and between Lake Maurepas and Lake Pontchartrain close to T-Bayou on Jones Island; associated with *Eleocharis cellulosa, Sagittaria lancifolia, Ipomoea sagittata, Symphyotrichum tenuifolium*; near 30.30539° N, 90.38862° W, elevation near 0 m, CRMS plot 0034, 9 Jul 2012, *J. Beadle, D. Wheat*, & *B. Boudreaux s.n.* (mounted on 2 sheets: LSU 130439, 130440). Figure 2.

***Chloris truncata*** R. Br. (black windmill-grass) was collected on a cattle operation in Livingston Parish. This taxon, an Australian native that has been reported in the USA from the vicinity of wool mills in South Carolina and near Lake Skinner in Riverside Co., California. How the species arrived in Louisiana is unknown, but it could be connected with cattle feed or the movement of livestock. Nevertheless, collectors should be on the lookout for this exotic. This collection represents a first report of this Australian species for Louisiana.

Features that distinguish *Chloris truncata* are its "lowest lemmas 1.8–4.5 mm long, 0.2–0.7 mm wide, narrowly elliptic, becoming very dark, often almost black at maturity, sides not grooved, mostly glabrous but the margins appressed pubescent, sometimes sparsely so, hairs shorter than 1 mm, apices truncate, awned, awns 3.1–16 mm" (Barkworth 2003).

Voucher. **Louisiana**. Livingston Parish: A Cooperative Extension worker who provided the sample was reluctant to provide locality data for this specimen; thus its exact collection site is unknown, but it was collected from a cattle operation, Jul 2012, *Sharpe s.n.* (LSU 130438, image; UTC 00264025). Figure 3.

***Gladiolus dalenii*** Van Geel subsp. ***dalenii*** was observed and collected on private property in the Stennis Space Center acoustical Buffer Zone while on a plant taxonomy field trip. According to the landowner there were a few houses on the site until recent years when they were removed without a trace. Perhaps one hundred or more *Gladiolus* plants were growing over a large area in deep, dry sands in full sunlight. Corms perennate these individuals, which can probably live for many years. Whether the taxon is truly naturalized and reproducing via seeds is not known, but extended observations should help answer this question. That this species is capable of persisting and possibly naturalizing in the region is suggested by a specimen collected from a roadside ditch northeast of

Greensburg, St. Helena Parish, Louisiana — 4 Jun 1971, *Allen 914* (LSU 10632). This taxon has been reported as an introduction to Alabama (Goldblatt 2002). Peter Goldblatt (pers. comm.), who kindly identified the Mississippi specimens, notes that this form is likely one that grows natively along the KwaZulu-Natal coast of eastern South Africa.

Voucher. **Mississippi.** Hancock County: On private property around former home sites in the Stennis Space Center acoustical buffer zone, ca. 0.2 mi SSW of the jct. of MS 607 and Texas Flat Rd, dry, very sandy soil, plants numerous scattered in open, sunny area, portion of site being mined for sand and gravel, near 30.426050° N, 89.647400° W, elev. ca. 11 m, 22 Apr 2012, *M.A. Reeves 19* (LSU 132269). Figure 4.

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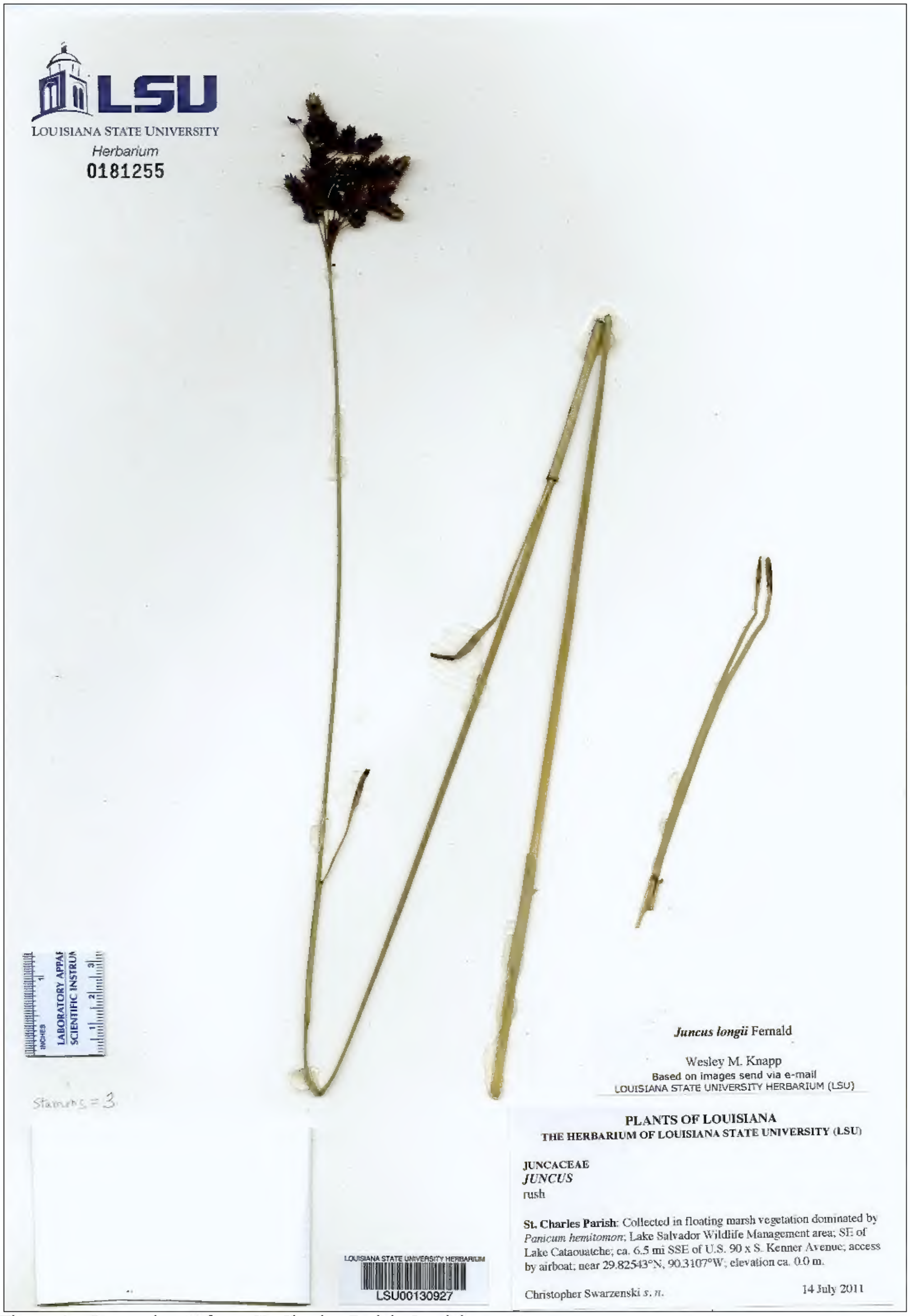
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Herbarium
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LABORATORY APPA
SCIENTIFIC INSTRU
Stamens = 3
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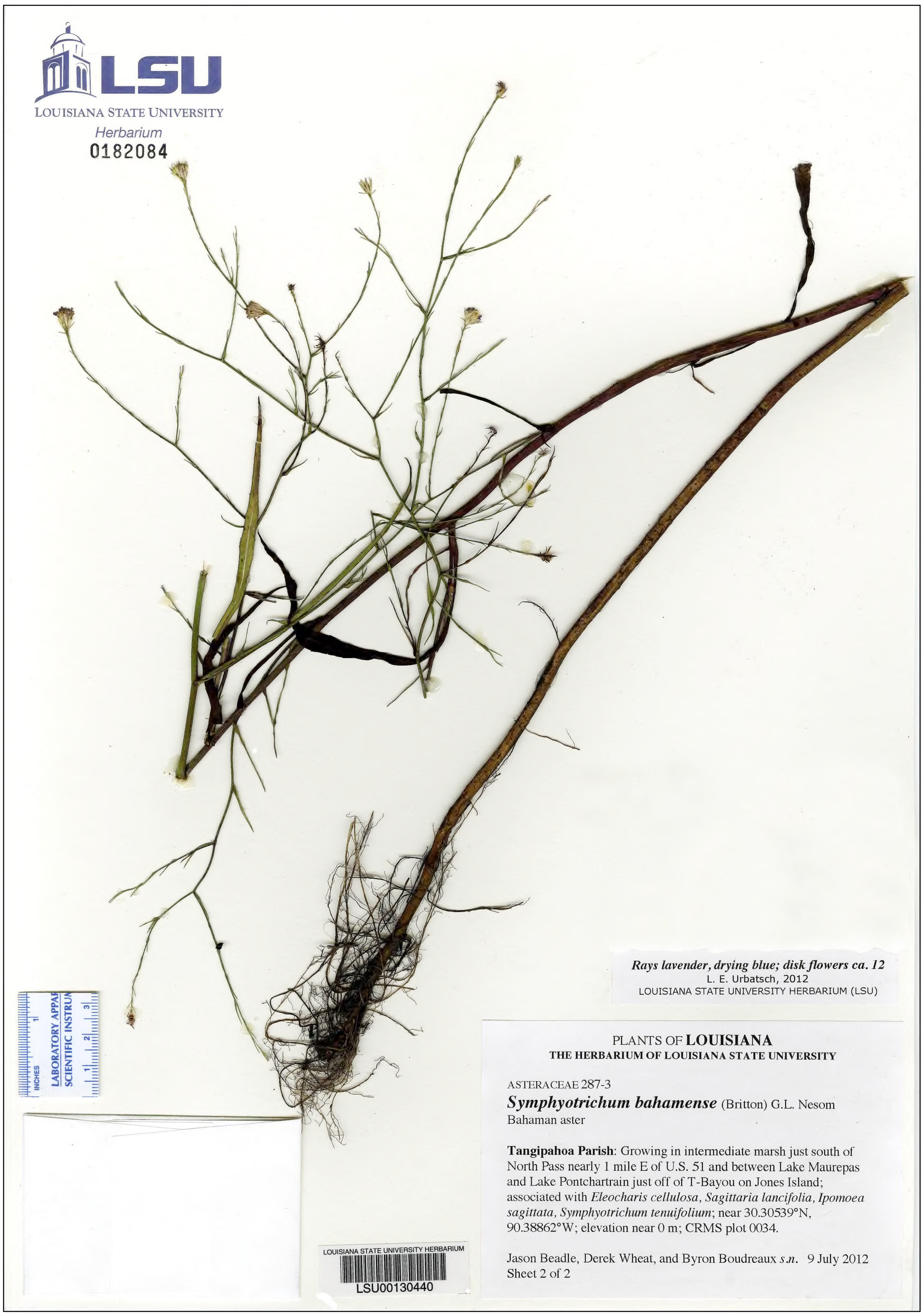
LSU00130927
Juncus longii Fernald
Wesley M. Knapp
Based on images send via e-mail
LOUISIANA STATE UNIVERSITY HERBARIUM (LSU)
PLANTS OF LOUISIANA
THE HERBARIUM OF LOUISIANA STATE UNIVERSITY (LSU)
JUNCACEAE
JUNCUS
rush
St. Charles Parish: Collected in floating marsh vegetation dominated by Panicum hemitomon; Lake Salvador Wildlife Management area; SE of Lake Cataouatche; ca. 6.5 mi SSE of U.S. 90 x S. Kenner Avenue; access by airboat; near 29.82543°N, 90.3107°W; elevation ca. 0.0 m.
Christopher Swarzenski s. n.
14 July 2011

Figure 1. *Juncus longii* from St. Charles Parish, Louisiana.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Herbarium
0182084
Rays lavender, drying blue; disk flowers ca. 12
L. E. Urbatsch, 2012
LOUISIANA STATE UNIVERSITY HERBARIUM (LSU)
PLANTS OF LOUISIANA
THE HERBARIUM OF LOUISIANA STATE UNIVERSITY
ASTERACEAE 287-3
Symphyotrichum bahamense (Britton) G.L. Nesom
Bahaman aster
Tangipahoa Parish: Growing in intermediate marsh just south of North Pass nearly 1 mile E of U.S. 51 and between Lake Maurepas and Lake Pontchartrain just off of T-Bayou on Jones Island; associated with Eleocharis cellulosa, Sagittaria lancifolia, Ipomoea sagittata, Symphyotrichum tenuifolium; near 30.30539°N, 90.38862°W; elevation near 0 m; CRMS plot 0034.
Jason Beadle, Derek Wheat, and Byron Boudreaux s.n. 9 July 2012
Sheet 2 of 2
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LSU00130440

Figure 2. Symphyotrichum bahamense from Tangipahoa Parish, Louisiana.

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Herbarium
0182086
Inflorescence
branches ca. 6 cm
Chloris truncata R. Br.
Specimen determined by Mary Barkworth
and deposited at USU 264025;
image deposited at LSU
L. E. Urbatsch, 2013
LOUISIANA STATE UNIVERSITY HERBARIUM (LSU)
PLANTS OF LOUISIANA
THE HERBARIUM OF LOUISIANA STATE UNIVERSITY
POACEAE 312-14
Chloris truncata R. Br.
Black Windmill-Grass
Livingston Parish: This specimen represents a first report of this Australian species for Louisiana. A Cooperative Extension worker, for an expansive litany of reasons, was reluctant, uncoorperative, and or unable to provide locality data for this specimen. Thus, its exact collection site is unknown.
Collected by an unknown farmer and given to County Agent Kenneth W. Sharpe and brought to the LSU Herbarium for identification July 2012
LOUISIANA STATE UNIVERSITY HERBARIUM
LSU00130438

Figure 3. *Chloris truncata* from Livingston Parish, Louisiana.

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LABORATORY APPARATUS
SCIENTIFIC INSTRUMENTS
INCHES
Gladiolus dalenii Van Geel subsp. dalenii
Peter Goldblatt, 2012
Missouri Botanical Garden
PLANTS OF MISSISSIPPI
THE HERBARIUM OF LOUISIANA STATE UNIVERSITY
IRIDACEAE 333
Gladiolus
Hancock County: Collected on private property at former home sites in the Stennis Space Center buffer zone, ca. 0.2 mi SSW of the jct. of MS 607 and Texas Flat Rd.; dry, very sandy soil; plants numerous scattered in open, sunny area; portion of site is being mined for sand and gravel; near 30.426050°N, 89.647400°W; elevation about 11 m.
M. A. Reeves 19
L. E. Urbatsch 10,369
22 April 2012
LOUISIANA STATE UNIVERSITY HERBARIUM
LSU00132269

Figure 4. *Gladiolus dalenii* from Hancock Co., Mississippi.